Release notes for ENDF/B Development e-041_Nb_000 evaluation



October 13, 2016

• fudge-4.0 Warnings:

1. Mislabled emitted particle Reading ENDF file: ../e-041_Nb_000.endf (Error # 0): ZAP messed up

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0

2. FIXME: Generic fudge unimplemented message reaction label 1: e- + Nb + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data

3. FIXME: Generic fudge unimplemented message reaction label 2: e- + Nb [excitation] / Product: e- (Error # 0): Generic unimp (c)

WARNING: Checking not yet implemented for energyLoss type data

• fudge-4.0 Errors:

1. Calculated and tabulated thresholds don't agree reaction label 0: e- + Nb [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

2. Calculated and tabulated thresholds don't agree reaction label 1: e- + Nb + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

3. Calculated and tabulated thresholds don't agree reaction label 2: e- + Nb [excitation] / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!

4. Calculated and tabulated thresholds don't agree reaction label 3: e- + e- + Nb1s1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 18948. eV!

5. Calculated and tabulated thresholds don't agree reaction label 4: e- + e- + Nb2s1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2676.3 eV!

6. Calculated and tabulated thresholds don't agree reaction label 5: e- + e- + Nb2p1/2 / Cross section: (Error # 0): Threshold mismatch

WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2466.6 eV!

7. Calculated and tabulated thresholds don't agree reaction label 6: e- + e- + Nb2p3/2 / Cross section: (Error # 0): Threshold mismatch

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WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2369.1 eV!
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- 8. Calculated and tabulated thresholds don't agree reaction label 7: e- + e- + Nb3s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 455.98 eV!
- 9. Calculated and tabulated thresholds don't agree reaction label 8: e- + e- + Nb3p1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 375.22 eV!
- 10. Calculated and tabulated thresholds don't agree reaction label 9: e- + e- + Nb3p3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 359.28 eV!
- 11. Calculated and tabulated thresholds don't agree reaction label 10: e- + e- + Nb3d3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 214.82 eV!
- 12. Calculated and tabulated thresholds don't agree reaction label 11: e- + e- + Nb3d5/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 211.81 eV!
- 13. Calculated and tabulated thresholds don't agree reaction label 12: e- + e- + Nb4s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 63.45 eV!
- 14. Calculated and tabulated thresholds don't agree reaction label 13: e- + e- + Nb4p1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 40.58 eV!
- 15. Calculated and tabulated thresholds don't agree reaction label 14: e- + e- + Nb4p3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 38.36 eV!
- 16. Calculated and tabulated thresholds don't agree reaction label 15: e- + e- + Nb4d3/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.94 eV!
- 17. Calculated and tabulated thresholds don't agree reaction label 16: e- + e- + Nb4d5/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.76 eV!
- 18. Calculated and tabulated thresholds don't agree reaction label 17: e- + e- + Nb5s1/2 / Cross section: (Error # 0): Threshold mismatch
 - WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.73 eV!

• xsectplotter Warnings:

 $\begin{array}{ccc} 1. & {\rm Mislabled~emitted~particle} \\ & \textit{Error:~ZAP~messed~up} \end{array}$

 ${\tt stderr} \ {\tt while} \ {\tt processing} \ {\tt crossSection}$

WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0 \dots [2 more lines]